

Barr Engineering Company
4700 West 77th Street • Minneapolis, MN 55435-4803
Phone: 612-832-2600 • Fax: 612-832-2601

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142916

Minneapolis, MN • Hibbing, MN • Duluth, MN • Ann Arbor, MI • Jefferson City, MO

February 5, 1999

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for January 1999**

Dear Mr. Bellot:

Enclosed is the monthly progress report for January 1999 for the Remedial Investigation/ Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,

for James R. Langseth

JRL/lah

Enclosure

c: Larry Schmitt
Jerry Willman
Bill Andrae
Steve Matuszak
Jerry Picha
Stephen Armstrong
Jerry Maynard
James Campbell
Edward Peterson
Russell Selman
Gretchen Monti
Sean Mulroney
Sue Pastor

202731

**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
February 5, 1999**

This report summarizes the work that was completed during January 1999 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Waiting for U.S. EPA comments on the November 1998 Feasibility Study.

Results of Sampling and Tests Completed During the Month

- No sampling results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.



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January 8, 1999

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for December 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for December 1998 for the Remedial Investigation/ Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

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James R. Langseth

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Enclosure

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**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
January 8, 1999**

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Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Submitted December 14, 1998, letter to U.S. EPA discussing regulatory issues.

Results of Sampling and Tests Completed During the Month

- No sampling results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

Barr

Engineering Company

8300 Norman Center Drive
Minneapolis, MN 55437-1026

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February 16, 1995

Mr. William Bolen
U.S. Environmental Protection Agency
Region V
Waste Management Division
IL/IN Remedial Response Branch
HSRL-6J
77 West Jackson Boulevard
Chicago, IL 60604

Re: Waukegan Manufactured Gas and Coke Plant Site

Dear Mr. Bolen:

At the request of Mr. Patrick Doyle of North Shore Gas, I am submitting one copy of the revised *Remedial Investigation Report, Waukegan Manufactured Gas and Coke Plant Site*. I understand that you will contact me regarding the number of additional copies needed after you have reviewed the changes in this revision. The RI report has been corrected pursuant to the comments transmitted with your January 31, 1995 letter to Patrick Doyle.

In response to comment 3, Appendix 5-C now provides the calculated flows for groundwater entering the site (page 5-C-9). The report text now refers to this appendix to justify the conclusion of insignificant flow entering the site from beneath OMC plant no. 2.

Except for comment 6, the changes to the report for several of the comments were modified in accordance with our discussions on February 6 and 9, 1995. These modifications were confirmed in my February 10, 1995 letter to you. As a result of your instruction on February 14, 1995, the changes to the report for comment 6 were made as stated in your January 31, 1995 transmittal.

If you have any questions, do not hesitate to call.

Yours truly,



James R. Langseth

JRL/mst

Enclosure

c: Isaac Johnson (w/encl.)
Jerry Willman (w/encl.)
Patrick Doyle (w/encl.)
Jerry Picha
Margaret Skinner
Steve Armstrong (w/encl.)

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Marianne Grammer
Russ Selman (w/encl.)
Jerry Maynard
Jim Campbell
Ed Peterson
Sean Mulronev



BARR

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December 7, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

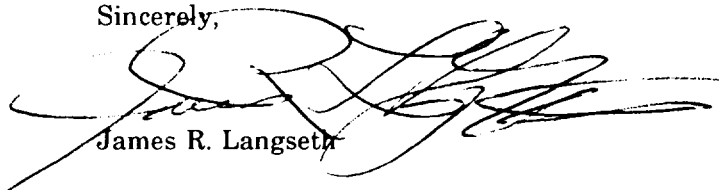
**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for November 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for November 1998 for the Remedial Investigation/ Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

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Sincerely,



James R. Langseth

JRL/cnl

Enclosure

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Jerry Willman
Bill Andrae
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Russell Selman
Gretchen Monti
Sean Mulrone
Sue Pastor

202088

**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
December 7, 1998**

This report summarizes the work that was completed during November 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Submitted November 6, 1998 draft of the feasibility study to the U.S. EPA.

Results of Sampling and Tests Completed During the Month

- Submitted Lake Michigan and Waukegan Harbor surface water quality data for the September 1998 sampling.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.



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November 6, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for October 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for October 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

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James R. Langseth

JRL/cnl

Enclosure

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Bill Andrae
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Russell Selman
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Sean Mulrone
Sue Pastor

201416

**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
November 6, 1998**

This report summarizes the work that was completed during October 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Met with U.S. EPA on October 14 to discuss responses to U.S. EPA's comments on the June 30 draft feasibility study.

Results of Sampling and Tests Completed During the Month

- No analytical results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

Barr

Engineering Company

October 7, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

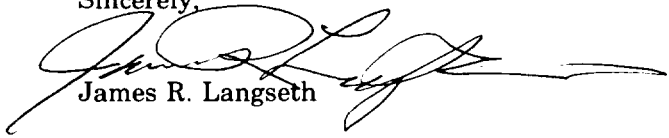
**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for September 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for September 1998 for the Remedial Investigation/ Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,


James R. Langseth

JRL/cnl

Enclosure

c: Larry Schmitt
Jerry Willman
Bill Andrae
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Jerry Maynard
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Russell Selman
Gretchen Monti
Sean Mulroney
Sue Pastor

200912

**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
October 7, 1998**

This report summarizes the work that was completed during September 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Received final comments dated September 4, 1998 on the Feasibility Study from the U.S. EPA.
- Collected surface water samples from Lake Michigan and Waukegan Harbor on September 15-18, 1998.

Results of Sampling and Tests Completed During the Month

- No analytical results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

Barr

Engineering Company

August 7, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for July 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for July 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,



James R. Langseth

JRL/dsd
Enclosure

c: Larry Schmitt
Jerry Willman
Bill Andrae
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Jerry Picha
Stephen Armstrong
Jerry Maynard
James Campbell
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Russell Selman
Gretchen Monti
Sean Mulroney
Sue Pastor

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**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
August 7, 1998**

This report summarizes the work that was completed during July 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Met with U.S. EPA on July 27, 1998 to discuss the Feasibility Study.
- Collected Lake Michigan and Waukegan Harbor surface water quality samples June 30-July 2, 1998.

Results of Sampling and Tests Completed During the Month

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

Barr

Engineering Company

June 5, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for May 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for May 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

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Sincerely,



James R. Langseth

JRL/dsd

Enclosure

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└ 332 West Superior Street
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Fax: (218) 727-6450

└ P.O. Box 130917
Ann Arbor, MI 48113-0917
Phone: (313) 327-1200
Fax: (313) 327-1212

**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
June 5, 1998**

This report summarizes the work that was completed during May 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Met with U.S. EPA on May 7 to discuss remedial alternatives. Selected for detailed analysis in the draft FS.
- Met with U.S. EPA management and IEPA on May 14.
- The draft FS will be submitted to the U.S. EPA on June 30.
- Continued evaluation of potential remedial alternatives.

Results of Sampling and Tests Completed During the Month

- No analytical data was submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

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Engineering Company

April 7, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
Chicago, IL 60604-3590

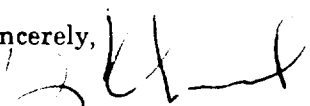
**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for March 1998**

Dear Mr. Bellot:

Enclosed is the monthly progress report for March 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,


for James R. Langseth

JRL/cnl

Enclosure

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Jerry Willman
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**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
April 7, 1998**

This report summarizes the work that was completed during March 1998 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Met with U.S. EPA on March 24 to discuss potential remedial alternatives for groundwater.
- A new schedule for submitting the draft feasibility study was discussed at the March 24, 1998 meeting. The draft FS will be submitted to the U.S. EPA on June 30.
- Continued evaluation of potential remedial alternatives.

Results of Sampling and Tests Completed During the Month

- No analytical data was submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

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Engineering Company

February 6, 1998

Mr. Mike Bellot
U.S. EPA, Region V, SR-6J
Superfund Division
Remedial Response Section #1
77 West Jackson Boulevard
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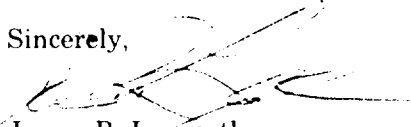
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Monthly Progress Report for January 1998**

Dear Mr. Bellot:

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February 6, 1998**

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Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Received comments from U.S. EPA draft feasibility study sections 3 and 4 on January 19, 1998.
- A new schedule will be proposed after the February 18, 1998 meeting with U.S. EPA.
- Continued evaluation of potential remedial alternatives.

Results of Sampling and Tests Completed During the Month

- No analytical data was submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

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Engineering Company

January 8, 1998

Mr. Mike Bellot
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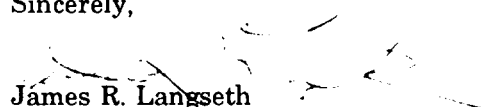
**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for December 1997**

Dear Mr. Bellot:

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James R. Langseth

JRL/cnl

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Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Met with U.S. EPA on December 17, 1997 to discuss draft feasibility study sections 3 and 4 and results of 1997 beach transect sampling.
- Draft feasibility study schedule was discussed with U.S. EPA at the December 17, 1997 meeting. A new schedule will be proposed after the February 18, 1998 meeting with U.S. EPA.
- Continued evaluation of potential remedial alternatives.

Results of Sampling and Tests Completed During the Month

- Analytical data for the 1997 beach transect and Lake Michigan sampling was submitted to U.S. EPA December 9, 1997.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

Barr

Engineering Company

December 5, 1997

Mr. Mike Bellot
SR-6J
Project Manager
U.S. EPA, Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for November 1997**

Dear Mr. Bellot:

Enclosed is the monthly progress report for November 1997 for the Remedial Investigation/ Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,



James R. Langseth

JRL/dsd

Enclosure

c: Lawrence Schmitt
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Steve Matuszak
Jerry Picha
Margaret Skinner
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**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
December 5, 1997**

This report summarizes the work that was completed during November 1997 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Draft feasibility study is scheduled for submission to EPA on January 29, 1998. This schedule will be revised following the December 17, 1997 meeting.
- Continued evaluation of potential remedial alternatives.

Results of Sampling and Tests Completed During the Month

- No test results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.

1997 LAKE MICHIGAN SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	LM-6N	LM-5N	LM-4N	LM-3N	LM-2N	LM-1N	H-1	LM-1S
	-----	-----	-----	-----	-----	-----	-----	-----
	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97
Phenol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
o-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
m-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
p-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
2,4-Dimethylphenol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Phenol, 4AAP	0.50	<0.01	0.45	0.06	<0.01	<0.01	<0.01	0.20
Benzene	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Dissolved Solids	177	161	167	175	180	170	173	173
Chloride	10.8	10.9	11.1	11.0	11.0	11.2	11.1	11.0
Sulfate	20.1	22.0	21.9	22.8	24.0	32.6	21.8	22.7
Ammonia Nitrogen	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Temperature, oC	19.8	20.8	20.0	19.7	19.7	20.4	21.4	20.5
Specific Conductance @ 25	283	284	285	285	285	286	287	286
pH, standard units	8.17	8.12	8.16	8.13	8.07	8.04	8.08	8.22
Redox, mV	67	66	58	46	34	32	62	68
Dissolved Oxygen	8.66	8.75	8.72	8.74	8.07	8.64	8.70	9.84
	LM-2S	LCZ-6N	LCZ-5N	LCZ-3N	LCZ-2N	LCZ-H1	LCZ-2S	
	-----	-----	-----	-----	-----	-----	-----	
	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	09/14/97	
Phenol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
o-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
m-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
p-Cresol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
2,4-Dimethylphenol	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Phenol, 4AAP	0.31	0.10	0.13	<0.01	<0.01	0.23	0.04	
Benzene	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Total Dissolved Solids	165	168	164	169	192	176	194	
Chloride	11.3	18.8	10.7	10.8	10.9	10.8	10.8	
Sulfate	23.7	25.7	22.5	21.0	23.6	47.0	22.9	
Ammonia Nitrogen	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Temperature, oC	21.5	21.3	22.4	20.5	20.5	20.6	20.6	
Specific Conductance @ 25	286	285	286	285	285	284	282	
pH, standard units	8.19	8.16	8.11	8.17	8.09	8.22	8.14	
Redox, mV	83	99	112	77	68	88	77	
Dissolved Oxygen	8.63	7.92	7.51	7.87	7.86	8.79	9.21	

3, .007
11/07/97

1997 BEACH TRANSECT SAMPLES
SOIL QUALITY DATA

(concentrations in mg/kg)

	SB6402	SB6404	SB6410	SB6416	SB6422	SB6428
	-----	-----	-----	-----	-----	-----
	09/12/97	09/12/97	09/11/97	09/11/97	09/11/97	09/11/97
Sample I.D.	SB64 (0-2')	SB64 (2-4')	SB64 (8-10')	SB6414-16'	SB6420-22'	SB6426-28'
Soil Boring	64	64	64	64	64	64
Depth	0-2'	2-4'	8-10'	14-16'	20-22'	26-28'
Carbon, total organic	138	136	164	576	855	532

3, .006						
11/05/97						

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	MW6D			MW6S		
	09/10/97 Sample	09/10/97 Replicate A	09/10/97 Replicate B	09/10/97 Sample	09/10/97 Replicate A	09/10/97 Replicate B
Sample I.D.	--	--	--	--	--	--
Soil Boring	--	--	--	--	--	--
Depth	--	--	--	--	--	--
Phenol	99	--	--	1	--	--
2-Chlorophenol	<20	--	--	<0.15	--	--
o-Cresol	13 j	--	--	0.33	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<20	--	--	0.56	--	--
2,4-Dimethylphenol	10 j	--	--	0.16	--	--
2-Nitrophenol	<20	--	--	<0.15	--	--
Benzoic Acid	<100	--	--	<0.75	--	--
2,4-Dichlorophenol	<20	--	--	<0.15	--	--
4-Chloro-3-methylphenol	<20	--	--	<0.15	--	--
2,4,6-Trichlorophenol	<20	--	--	<0.15	--	--
2,4,5-Trichlorophenol	<100	--	--	<0.75	--	--
2,4-Dinitrophenol	<100	--	--	<0.75	--	--
4-Nitrophenol	<100	--	--	<0.75	--	--
2-Methyl-4,6-dinitrophenol	<100	--	--	<0.75	--	--
Pentachlorophenol	<100	--	--	<0.75	--	--
Benzene	2.2	--	--	0.081	--	--
Ethyl Benzene	0.13	--	--	0.074	--	--
Toluene	0.58	--	--	0.061	--	--
Xylenes	<0.10	--	--	0.12	--	--
Arsenic	28.4	--	--	0.300	--	--
Arsenic, filtered	27.1	--	--	0.287	--	--
Iron, filtered	4.36	--	--	0.467	--	--
Manganese, filtered	0.0472	--	--	0.191	--	--
Total Alkalinity as CaCO3	5230	--	--	536	536	--
Total Dissolved Solids	1890	1790	--	617	619	--
Chloride	4090	2220	2220	82.4	98.3	75.6
Cyanide, WAD	0.106	--	--	<0.0050	<0.0050	--
Sulfate	95.3	96.3	--	40.6	42.5	--
Sulfide, total	4.0	--	--	0.4	0.4	--
Thiocyanate	214	224	--	7.3	7.03	--
Ammonia Nitrogen	2140	2570	2570	51.7	42.8	48.9
Nitrate	0.09	0.07	--	<0.05	<0.05	--
Nitrite	0.14	0.13	--	<0.05	<0.05	--
Phosphorus, total	12.4	--	--	0.37	0.37	--
Total Kjeldahl Nitrogen	2570	--	--	68.3	68.3	--
Biochemical Oxygen Demand (5-day)	1600	--	--	21	21	--
Chemical Oxygen Demand	2890	--	--	41	41	--
Carbon, dissolved	1820	--	--	52.5	52.5	--
Phenol, 4AAP	330	335	--	5.89	4.87	--
Carbon, total organic	1270	--	--	12.5	12.5	--
Carbon, dissolved organic	1620	--	--	10.0	10.0	--
Temperature, oC	11.3	--	--	14.4	--	--
Specific Conductance @ 25oC	2180	--	--	1310	--	--
pH, standard units	7.78	--	--	7.68	--	--
Redox, mV	-279	--	--	-173	--	--
Dissolved Oxygen	0.21	--	--	0.40	--	--
Nitrite	0-1.25	--	--	0-1.25	--	--
Nitrate	0-2.5	--	--	0-2.5	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3,.004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	MW13D			MW13S		
	09/10/97	09/10/97	09/10/97	09/10/97	09/10/97	09/10/97
	Sample	Replicate A	Replicate B	Sample	Replicate A	Replicate B
Sample I.D.	--	--	--	--	--	--
Soil Boring	--	--	--	--	--	--
Depth	--	--	--	--	--	--
Phenol	300	--	--	0.051	--	--
2-Chlorophenol	<50	--	--	<0.010	--	--
o-Cresol	35 j	--	--	0.005 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	150	--	--	0.018	--	--
2,4-Dimethylphenol	9.5 j	--	--	0.001 j	--	--
2-Nitrophenol	<50	--	--	<0.010	--	--
Benzoic Acid	<250	--	--	<0.050	--	--
2,4-Dichlorophenol	<50	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<50	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<50	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<250	--	--	<0.050	--	--
2,4-Dinitrophenol	<250	--	--	<0.050	--	--
4-Nitrophenol	<250	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<250	--	--	<0.050	--	--
Pentachlorophenol	<250	--	--	<0.050	--	--
Benzene	1.1	--	--	<0.0010	--	--
Ethyl Benzene	<0.10	--	--	<0.0010	--	--
Toluene	<0.10	--	--	<0.0010	--	--
Xylenes	<0.10	--	--	<0.0010	--	--
Arsenic	23.8	--	--	0.143	--	--
Arsenic, filtered	18.4	--	--	0.156	--	--
Iron, filtered	0.765	--	--	2.04	--	--
Manganese, filtered	0.151	--	--	1.10	--	--
Total Alkalinity as CaCO3	2640	--	--	261	--	--
Total Dissolved Solids	1510	1670	--	285	300	--
Chloride	3580	3310	3650	2.3	2.2	2.2
Cyanide, WAD	0.024	--	--	<0.0050	--	--
Sulfate	425	398	--	<2.0	<2.0	--
Sulfide, total	2.6	--	--	<0.1	--	--
Thiocyanate	545	515	545	0.738	--	--
Ammonia Nitrogen	1220	1680	1570	<0.2	<0.2	<0.2
Nitrate	<0.25	<0.25	--	<0.05	<0.05	--
Nitrite	<0.5	<0.05	--	<0.05	<0.05	--
Phosphorus, total	3.24	--	--	0.55	--	--
Total Kjeldahl Nitrogen	1760	--	--	0.7	--	--
Biochemical Oxygen Demand (5-day)	3050	--	--	<20	--	--
Chemical Oxygen Demand	4880	--	--	<20	--	--
Carbon, dissolved	1420	--	--	28.1	--	--
Phenol, 4AAP	974	907	--	<0.01	<0.01	--
Carbon, total organic	1380	--	--	6.3	--	--
Carbon, dissolved organic	1350	--	--	1.4	--	--
Temperature, °C	10.8	--	--	16.6	--	--
Specific Conductance @ 25°C	1615	--	--	487	--	--
pH, standard units	8.52	--	--	7.03	--	--
Redox, mV	-280	--	--	-123	--	--
Dissolved Oxygen, mg/L	0.43	--	--	0.11	--	--
Nitrite	0-1.25	--	--	0-1.25	--	--
Nitrate	0-2.5	--	--	0-2.5	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3, .004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6424			SB6430		
	09/11/97 Sample	09/11/97 Replicate A	09/11/97 Replicate B	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B
Sample I.D.	SB-64W24	SB-64W24	SB-64W24	SB-64W30	SB-64W30	SB-64W30
Soil Boring	64	64	64	64	64	64
Depth	24	24	24	30	30	30
Phenol	<0.010	--	--	140	--	--
2-Chlorophenol	<0.010	--	--	<30	--	--
o-Cresol	<0.010	--	--	15 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<0.010	--	--	55	--	--
2,4-Dimethylphenol	<0.010	--	--	<30	--	--
2-Nitrophenol	<0.010	--	--	<30	--	--
Benzoic Acid	0.076	--	--	<150	--	--
2,4-Dichlorophenol	<0.010	--	--	<30	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<30	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<30	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<150	--	--
2,4-Dinitrophenol	<0.050	--	--	<150	--	--
4-Nitrophenol	<0.050	--	--	<150	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<150	--	--
Pentachlorophenol	<0.050	--	--	<150	--	--
Benzene	<0.0010	--	--	0.23	--	--
Ethyl Benzene	<0.0010	--	--	<0.010	--	--
Toluene	<0.0010	--	--	<0.010	--	--
Xylenes	<0.0010	--	--	0.013	--	--
Arsenic	0.0971	--	--	12.0	--	--
Arsenic, filtered	0.0818	--	--	12.9	--	--
Iron, filtered	1.15	--	--	0.860	--	--
Manganese, filtered	0.0402	--	--	0.128	--	--
Total Alkalinity as CaCO3	323	--	--	1970	--	--
Total Dissolved Solids	380	370	--	629	595	--
Chloride	118	112	110	936	840	1050
Cyanide, WAD	0.0090	--	--	0.145	--	--
Sulfate	<2.0	<2.0	--	194	152	--
Sulfide, total	0.2	--	--	4.2	--	--
Thiocyanate	<1	<1	--	161	171	--
Ammonia Nitrogen	27.7	28.7	27.5	491	532	569
Nitrate	<0.05	<0.05	--	<0.05	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.71	--	--	5.39	--	--
Total Kjeldahl Nitrogen	36.3	--	--	654	--	--
Biochemical Oxygen Demand (5-day)	<20	--	--	800	--	--
Chemical Oxygen Demand	48	--	--	1390	--	--
Carbon, dissolved	34.2	--	--	445	--	--
Phenol, 4AAP	0.14	0.10	--	246	265	--
Carbon, total organic	4.2	--	--	362	--	--
Carbon, dissolved organic	3.4	--	--	356	--	--
Temperature, oC	14	--	--	12.9	--	--
Specific Conductance @ 25oC	70	--	--	619	--	--
pH, standard units	7.80	--	--	8.14	--	--
Redox, mV	-148	--	--	-296	--	--
Dissolved Oxygen	0.06	--	--	0.05	--	--
Nitrite	0-1.25	--	--	2-5	--	--
Nitrate	0-2.5	--	--	5-10	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3,,004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6104			SB6110		
	09/09/97 Sample	09/09/97 Replicate A	09/09/97 Replicate B	09/09/97 Sample	09/09/97 Replicate A	09/09/97 Replicate B
Sample I.D.	SB-61W04	SB-61W04	SB-61W04	SB-61W10	SB-61W10	SB-61W10
Soil Boring	61	61	61	61	61	61
Depth	4	4	4	10	10	10
Phenol	<0.010	--	--	<0.010	--	--
2-Chlorophenol	<0.010	--	--	<0.010	--	--
o-Cresol	<0.010	--	--	<0.010	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<0.010	--	--	<0.010	--	--
2,4-Dimethylphenol	<0.010	--	--	<0.010	--	--
2-Nitrophenol	<0.010	--	--	<0.010	--	--
Benzoic Acid	<0.050	--	--	<0.050	--	--
2,4-Dichlorophenol	<0.010	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<0.050	--	--
2,4-Dinitrophenol	<0.050	--	--	<0.050	--	--
4-Nitrophenol	<0.050	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<0.050	--	--
Pentachlorophenol	<0.050	--	--	<0.050	--	--
Benzene	<0.0010	--	--	<0.0010	--	--
Ethyl Benzene	<0.0010	--	--	<0.0010	--	--
Toluene	<0.0010	--	--	<0.0010	--	--
Xylenes	<0.0010	--	--	<0.0010	--	--
Arsenic	<0.0050	--	--	0.320	--	--
Arsenic, filtered	<0.0050	--	--	0.257	--	--
Iron, filtered	<0.100	--	--	3.19	--	--
Manganese, filtered	0.0151	--	--	0.382	--	--
Total Alkalinity as CaCO3	162	--	--	227	--	--
Total Dissolved Solids	217	208	--	269	269	--
Chloride	12.4	12.5	12.4	2.8	2.7	2.8
Cyanide, WAD	<5.0	--	--	<5.0	--	--
Sulfate	25.5	26.3	--	11.8	9.9	--
Sulfide, total	<0.1	--	--	<0.1	--	--
Thiocyanate	0.131	0.738	--	<0.500	<0.500	--
Ammonia Nitrogen	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrate	0.10	0.08	--	1.13	0.06	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.04	--	--	1.09	--	--
Total Kjeldahl Nitrogen	<0.1	--	--	1.4	--	--
Biochemical Oxygen Demand (5-day)	<20	--	--	<20	--	--
Chemical Oxygen Demand	<20	--	--	<20	--	--
Carbon, dissolved	26.0	--	--	44.8	--	--
Phenol, 4AAP	<0.01	<0.01	--	<0.01	<0.01	--
Carbon, total organic	1.6	--	--	6.2	--	--
Carbon, dissolved organic	2.7	--	--	2.6	--	--
Temperature, oC	19.9	--	--	16.7	--	--
Specific Conductance @ 25oC	371	--	--	462	--	--
pH, standard units	7.47	--	--	7.47	--	--
Redox, mV	-71	--	--	-187	--	--
Dissolved Oxygen, mg/L	1.08	--	--	0.39	--	--
Nitrite	0-1.25	--	--	0-1.25	--	--
Nitrate	0-2.5	--	--	0-2.5	--	--

-- Not analyzed.

3, .004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6116			SB6122		
	09/09/97 Sample	09/09/97 Replicate A	09/09/97 Replicate B	09/10/97 Sample	09/10/97 Replicate A	09/10/97 Replicate B
Sample I.D.	SB-61W16	SB-61W16	SB-61W16	SB-61W22	SB-61W22	SB-61W22
Soil Boring	61	61	61	61	61	61
Depth	16	16	16	22	22	22
Phenol	<0.010	--	--	<0.010	--	--
2-Chlorophenol	<0.010	--	--	<0.010	--	--
o-Cresol	<0.010	--	--	<0.010	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<0.010	--	--	<0.010	--	--
2,4-Dimethylphenol	<0.010	--	--	0.024	--	--
2-Nitrophenol	<0.010	--	--	<0.010	--	--
Benzoic Acid	<0.050	--	--	<0.050	--	--
2,4-Dichlorophenol	<0.010	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<0.050	--	--
2,4-Dinitrophenol	<0.050	--	--	<0.050	--	--
4-Nitrophenol	<0.050	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<0.050	--	--
Pentachlorophenol	<0.050	--	--	<0.050	--	--
Benzene	<0.0010	--	--	0.0077	--	--
Ethyl Benzene	<0.0010	--	--	<0.0010	--	--
Toluene	<0.0010	--	--	<0.0010	--	--
Xylenes	<0.0010	--	--	<0.0010	--	--
Arsenic	0.420	--	--	0.143	--	--
Arsenic, filtered	0.338	--	--	0.116	--	--
Iron, filtered	1.74	--	--	<0.100	--	--
Manganese, filtered	0.239	--	--	0.106	--	--
Total Alkalinity as CaCO3	179	--	--	518	--	--
Total Dissolved Solids	219	211	--	400	383	--
Chloride	6.0	6.1	5.9	121	123	92
Cyanide, WAD	<0.0050	--	--	<0.0050	--	--
Sulfate	16.7	18.1	--	14.0	10.7	--
Sulfide, total	<0.1	--	--	0.3	--	--
Thiocyanate	0.653	0.823	--	2.10	2.01	--
Ammonia Nitrogen	<0.2	<0.2	0.7	49.9	47.5	48.0
Nitrate	0.08	0.21	--	0.06	0.08	--
Nitrite	<0.05	<0.05	--	<0.05	0.05	--
Phosphorus, total	0.18	--	--	1.20	--	--
Total Kjeldahl Nitrogen	1.6	--	--	55.8	--	--
Biochemical Oxygen Demand (5-day)	<20	--	--	<20	--	--
Chemical Oxygen Demand	<20	--	--	291	--	--
Carbon, dissolved	27.6	--	--	23.7	--	--
Phenol, 4AAP	0.08	0.71	--	0.02	<0.01	--
Carbon, total organic	6.5	--	--	22.3	--	--
Carbon, dissolved organic	3.7	--	--	5.3	--	--
Temperature, oC	16.0	--	--	18.0	--	--
Specific Conductance @ 25oC	70	--	--	50	--	--
pH, standard units	7.76	--	--	8.06	--	--
Redox, mV	-130	--	--	-30	--	--
Dissolved Oxygen	9.00	--	--	8.45	--	--
Nitrite	0-1.25	--	--	0-1.25	--	--
Nitrate	0-2.5	--	--	0-2.5	--	--

-- Not analyzed.

3,.004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6130			SB6206		
	09/10/97 Sample	09/10/97 Replicate A	09/10/97 Replicate B	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B
Sample I.D.	SB-61W30	SB-61W30	SB-61W30	SB-62W06	SB-62W06	SB-62W06
Soil Boring	61	61	61	62	62	62
Depth	30	30	30	6	6	6
Phenol	160	--	--	0.24	--	--
2-Chlorophenol	<25	--	--	<0.040	--	--
o-Cresol	18 j	--	--	0.020 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<25	--	--	0.063	--	--
2,4-Dimethylphenol	4.8 j	--	--	<0.040	--	--
2-Nitrophenol	<25	--	--	<0.040	--	--
Benzoic Acid	<120	--	--	<0.20	--	--
2,4-Dichlorophenol	<25	--	--	<0.040	--	--
4-Chloro-3-methylphenol	<25	--	--	<0.040	--	--
2,4,6-Trichlorophenol	<25	--	--	<0.040	--	--
2,4,5-Trichlorophenol	<120	--	--	<0.020	--	--
2,4-Dinitrophenol	<120	--	--	<0.020	--	--
4-Nitrophenol	<120	--	--	<0.020	--	--
2-Methyl-4,6-dinitrophenol	<120	--	--	<0.020	--	--
Pentachlorophenol	<120	--	--	<0.020	--	--
Benzene	0.38	--	--	<0.0010	--	--
Ethyl Benzene	<0.010	--	--	<0.0010	--	--
Toluene	<0.010	--	--	<0.0010	--	--
Xylenes	<0.010	--	--	<0.0010	--	--
Arsenic	21.0	--	--	0.121	--	--
Arsenic, filtered	16.5	--	--	0.128	--	--
Iron, filtered	1.42	--	--	1.64	--	--
Manganese, filtered	0.0725	--	--	0.376	--	--
Total Alkalinity as CaCO3	5380	--	--	233	--	--
Total Dissolved Solids	928	1110	--	272	272	--
Chloride	2300	1810	2060	2.1	2.3	2.2
Cyanide, WAD	0.178	--	--	<0.0050	--	--
Sulfate	434	419	--	14.9	14.3	--
Sulfide, total	2.4	--	--	<0.1	--	--
Thiocyanate	315	530	--	<1	<1	--
Ammonia Nitrogen	1050	1150	1070	0.4	<0.2	<0.2
Nitrate	0.10	0.09	--	<0.05	<0.05	--
Nitrite	0.06	0.07	--	<0.05	<0.05	--
Phosphorus, total	3.20	--	--	0.37	--	--
Total Kjeldahl Nitrogen	1750	--	--	0.9	--	--
Biochemical Oxygen Demand (5-day)	2850	--	--	<10	--	--
Chemical Oxygen Demand	4670	--	--	<20	--	--
Carbon, dissolved	1220	--	--	33.7	--	--
Phenol, 4AAP	588	783	--	0.03	<0.01	--
Carbon, total organic	1240	--	--	14.7	--	--
Carbon, dissolved organic	1160	--	--	1.7	--	--
Temperature, oC	14.7	--	--	17.6	--	--
Specific Conductance @ 25oC	39	--	--	430	--	--
pH, standard units	8.38	--	--	7.46	--	--
Redox, mV	-77	--	--	-198	--	--
Dissolved Oxygen	3.10	--	--	0.53	--	--
Nitrite	2-5	--	--	0-2.5	--	--
Nitrate	5-10	--	--	0-5	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

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11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6212			SB6218			
	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B	09/13/97 Sample	09/13/97 Duplicate	09/13/97 Replicate A	09/13/97 Replicate B
Sample I.D.	SB-62W12	SB-62W12	SB-62W12	SB-62W18	SB-62W18	SB-62W18	SB-62W18
Soil Boring	62	62	62	62	62	62	62
Depth	12	12	12	18	18	18	18
Phenol	0.042	--	--	0.017	0.035	--	--
2-Chlorophenol	<0.010	--	--	<0.010	<0.010	--	--
o-Cresol	0.004 j	--	--	0.002 j	0.003 j	--	--
m-Cresol	--	--	--	--	--	--	--
p-Cresol	0.011	--	--	0.007 j	0.010	--	--
2,4-Dimethylphenol	<0.010	--	--	<0.010	<0.010	--	--
2-Nitrophenol	<0.010	--	--	<0.010	<0.010	--	--
Benzoic Acid	<0.050	--	--	0.013 j	0.012 j	--	--
2,4-Dichlorophenol	<0.010	--	--	<0.010	<0.010	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<0.010	<0.010	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<0.010	<0.010	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<0.050	<0.050	--	--
2,4-Dinitrophenol	<0.050	--	--	<0.050	<0.050	--	--
4-Nitrophenol	<0.050	--	--	<0.050	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<0.050	<0.050	--	--
Pentachlorophenol	<0.050	--	--	<0.050	<0.050	--	--
Benzene	<0.0010	--	--	0.013	--	--	--
Ethyl Benzene	<0.0010	--	--	<0.0010	--	--	--
Toluene	<0.0010	--	--	<0.0010	--	--	--
Xylenes	<0.0010	--	--	0.0011	--	--	--
Arsenic	0.515	--	--	1.12	1.14	--	--
Arsenic, filtered	0.512	--	--	1.07	0.991	--	--
Iron, filtered	1.31	--	--	0.898	0.888	--	--
Manganese, filtered	0.114	--	--	0.0595	0.0588	--	--
Total Alkalinity as CaCO3	227	--	--	287	--	--	--
Total Dissolved Solids	274	263	--	413	--	399	--
Chloride	3.0	2.9	2.9	74.1	--	74.1	74.7
Cyanide, WAD	<0.0050	--	--	<0.0050	--	--	--
Sulfate	6.5	7.0	--	<2.0	--	<2.0	--
Sulfide, total	<0.1	--	--	<0.1	--	--	--
Thiocyanate	<1	<1	--	<1	--	<1	--
Ammonia Nitrogen	<0.2	<0.2	<0.2	6.9	7.3	6.1	6.3
Nitrate	<0.05	<0.05	--	<0.05	0.39	0.06	--
Nitrite	<0.05	<0.05	--	<0.05	--	<0.05	--
Phosphorus, total	0.94	--	--	0.35	0.39	--	--
Total Kjeldahl Nitrogen	1.4	--	--	8.3	8.5	--	--
Biochemical Oxygen Demand (5-day)	<10	--	--	<20	--	--	--
Chemical Oxygen Demand	<20	--	--	40	<20	--	--
Carbon, dissolved	38.8	--	--	44.0	--	--	--
Phenol, 4AAP	<0.01	<0.01	--	<0.01	0.02	<0.01	--
Carbon, total organic	7.4	--	--	4.1	3.0	--	--
Carbon, dissolved organic	4.0	--	--	3.5	--	--	--
Temperature, oC	15.1	--	--	12.7	--	--	--
Specific Conductance @ 25oC	430	--	--	710	--	--	--
pH, standard units	7.81	--	--	7.85	--	--	--
Redox, mV	-211	--	--	-152	--	--	--
Dissolved Oxygen	0.47	--	--	1.02	--	--	--
Nitrite	0-1.25	--	--	3-15	--	--	--
Nitrate	0-2.5	--	--	10-15	--	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3,.004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6224			SB6230			
	09/13/97 Sample	09/13/97 Replicate A	09/13/97 Replicate B	09/13/97 Sample	09/13/97 Duplicate	09/13/97 Replicate A	09/13/97 Replicate B
Sample I.D.	SB-62W24	SB-62W24	SB-62W24	SB-62W30	SB-62W30	SB-62W30	SB-62W30
Soil Boring	62	62	62	62	62	62	62
Depth	24	24	24	30	30	30	30
Phenol	1.4	--	--	430	--	--	--
2-Chlorophenol	<0.30	--	--	<70	--	--	--
o-Cresol	1.1	--	--	43 j	--	--	--
m-Cresol	--	--	--	--	--	--	--
p-Cresol	2.2	--	--	170	--	--	--
2,4-Dimethylphenol	0.47	--	--	10 j	--	--	--
2-Nitrophenol	<0.30	--	--	<70	--	--	--
Benzoic Acid	<1.5	--	--	<350	--	--	--
2,4-Dichlorophenol	<0.30	--	--	<70	--	--	--
4-Chloro-3-methylphenol	<0.30	--	--	<70	--	--	--
2,4,6-Trichlorophenol	<0.30	--	--	<70	--	--	--
2,4,5-Trichlorophenol	<1.5	--	--	<350	--	--	--
2,4-Dinitrophenol	<1.5	--	--	<350	--	--	--
4-Nitrophenol	<1.5	--	--	<350	--	--	--
2-Methyl-4,6-dinitrophenol	<1.5	--	--	<350	--	--	--
Pentachlorophenol	<1.5	--	--	<350	--	--	--
Benzene	0.047	--	--	0.75	0.72	--	--
Ethyl Benzene	<0.0010	--	--	<0.025	<0.050	--	--
Toluene	<0.0010	--	--	<0.025	<0.050	--	--
Xylenes	<0.0010	--	--	<0.025	<0.050	--	--
Arsenic	0.991	--	--	62.7	--	--	--
Arsenic, filtered	1.09	--	--	53.6	--	--	--
Iron, filtered	0.412	--	--	1.23	--	--	--
Manganese, filtered	0.0189	--	--	0.0161	--	--	--
Total Alkalinity as CaCO3	622	--	--	2840	--	--	--
Total Dissolved Solids	492	500	--	1980	--	2040	--
Chloride	446	459	459	3950	--	4000	4100
Cyanide, WAD	0.0094	--	--	0.428	--	--	--
Sulfate	<2.0	<2.0	--	630	--	627	--
Sulfide, total	0.2	--	--	11.1	--	--	--
Thiocyanate	1.14	2.81	--	679	--	804	--
Ammonia Nitrogen	253	236	177	903	996	1200	1270
Nitrate	<0.05	0.06	--	<0.05	--	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	--	<0.05	--
Phosphorus, total	0.70	--	--	4.85	--	--	--
Total Kjeldahl Nitrogen	257	--	--	1480	--	--	--
Biochemical Oxygen Demand (5-day)	23	--	--	3600	--	--	--
Chemical Oxygen Demand	185	--	--	5980	--	--	--
Carbon, dissolved	116	--	--	1600	--	--	--
Phenol, 4AAP	5.04	5.42	--	1150	--	1130	--
Carbon, total organic	29.8	--	--	1710	--	--	--
Carbon, dissolved organic	19.2	--	--	1630	--	--	--
Temperature, oC	11.5	--	--	12.3	--	--	--
Specific Conductance @ 25oC	283	--	--	1531	--	--	--
pH, standard units	8.28	--	--	8.63	--	--	--
Redox, mV	-202	--	--	-278	--	--	--
Dissolved Oxygen	0	--	--	0.04	--	--	--
Nitrite	2-3	--	--	2-3	--	--	--
Nitrate	3-5	--	--	3-5	--	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3,.004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6306			SB6312		
	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B
Sample I.D.	SB-63W06	SB-63W06	SB-63W06	SB-63W12	SB-63W12	SB-63W12
Soil Boring	63	63	63	63	63	63
Depth	6	6	6	12	12	12
Phenol	0.056	--	--	0.17	--	--
2-Chlorophenol	<0.010	--	--	<0.030	--	--
o-Cresol	0.006 j	--	--	0.014 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	0.022	--	--	0.047	--	--
2,4-Dimethylphenol	0.001 j	--	--	<0.030	--	--
2-Nitrophenol	<0.010	--	--	<0.030	--	--
Benzoic Acid	<0.050	--	--	<0.15	--	--
2,4-Dichlorophenol	<0.010	--	--	<0.030	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<0.030	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<0.030	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<0.15	--	--
2,4-Dinitrophenol	<0.050	--	--	<0.15	--	--
4-Nitrophenol	<0.050	--	--	<0.15	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<0.15	--	--
Pentachlorophenol	<0.050	--	--	<0.15	--	--
Benzene	<0.0010	--	--	0.0014	--	--
Ethyl Benzene	<0.0010	--	--	<0.0010	--	--
Toluene	<0.0010	--	--	<0.0010	--	--
Xylenes	<0.0010	--	--	<0.0010	--	--
Arsenic	0.0120	--	--	0.477	--	--
Arsenic, filtered	0.0078	--	--	0.498	--	--
Iron, filtered	0.343	--	--	1.33	--	--
Manganese, filtered	0.331	--	--	0.106	--	--
Total Alkalinity as CaCO3	203	--	--	221	--	--
Total Dissolved Solids	251	236	--	260	264	--
Chloride	11.8	12.6	12.0	2.5	2.5	2.4
Cyanide, WAD	0.0050	--	--	<0.0050	--	--
Sulfate	6.3	5.2	--	4.8	6.5	--
Sulfide, total	<0.1	--	--	<0.1	--	--
Thiocyanate	1.48	1.64	--	1.31	1.48	--
Ammonia Nitrogen	<0.2	<0.2	<0.2	<0.2	<0.2	0.4
Nitrate	<0.05	<0.05	--	<0.05	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.15	--	--	0.92	--	--
Total Kjeldahl Nitrogen	0.6	--	--	1.8	--	--
Biochemical Oxygen Demand (5-day)	<10	--	--	<10	--	--
Chemical Oxygen Demand	<20	--	--	<20	--	--
Carbon, dissolved	37.2	--	--	33.4	--	--
Phenol, 4AAP	0.04	0.15	--	0.08	0.09	--
Carbon, total organic	3.1	--	--	4.0	--	--
Carbon, dissolved organic	2.9	--	--	2.0	--	--
Temperature, °C	19.3	--	--	16.2	--	--
Specific Conductance @ 25°C	430	--	--	423	--	--
pH, standard units	7.47	--	--	7.70	--	--
Redox, mV	-173	--	--	-205	--	--
Dissolved Oxygen	0.12	--	--	0.05	--	--
Nitrite	7-10	--	--	2-4	--	--
Nitrate	20-25	--	--	5-10	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

3, .004

11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

Sample I.D.	SB6318			SB6324		
	09/12/97	09/12/97	09/12/97	09/12/97	09/12/97	09/12/97
	Sample	Replicate A	Replicate B	Sample	Replicate A	Replicate B
Sample I.D.	SB-63W18	SB-63W18	SB-63W18	SB-63W24	SB-63W24	SB-63W24
Soil Boring	63	63	63	63	63	63
Depth	18	18	18	24	24	24
Phenol	0.082	--	--	0.051	--	--
2-Chlorophenol	<0.020	--	--	<0.0010	--	--
o-Cresol	0.008 j	--	--	0.004 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	0.023	--	--	0.014	--	--
2,4-Dimethylphenol	<0.020	--	--	<0.010	--	--
2-Nitrophenol	<0.020	--	--	<0.010	--	--
Benzoic Acid	<0.10	--	--	<0.050	--	--
2,4-Dichlorophenol	<0.020	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<0.020	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<0.020	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<0.10	--	--	<0.050	--	--
2,4-Dinitrophenol	<0.10	--	--	<0.050	--	--
4-Nitrophenol	<0.10	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<0.10	--	--	<0.050	--	--
Pentachlorophenol	<0.10	--	--	<0.050	--	--
Benzene	<0.0010	--	--	0.022	--	--
Ethyl Benzene	<0.0010	--	--	<0.0010	--	--
Toluene	<0.0010	--	--	<0.0010	--	--
Xylenes	0.0016	--	--	<0.0010	--	--
Arsenic	0.393	--	--	0.782	--	--
Arsenic, filtered	0.377	--	--	0.762	--	--
Iron, filtered	1.53	--	--	1.70	--	--
Manganese, filtered	0.0979	--	--	0.0658	--	--
Total Alkalinity as CaCO3	231	--	--	293	--	--
Total Dissolved Solids	297	263	--	399	428	--
Chloride	2.8	2.7	2.9	85.0	83.9	84.5
Cyanide, WAD	0.0058	--	--	0.0064	--	--
Sulfate	<2.0	<2.0	--	<2.0	<2.0	--
Sulfide, total	<0.1	--	--	0.2	--	--
Thiocyanate	1.64	<1	--	1.64	1.31	--
Ammonia Nitrogen	0.9	0.4	<0.2	9.9	9.5	10.8
Nitrate	<0.05	<0.05	--	<0.05	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.37	--	--	1.19	--	--
Total Kjeldahl Nitrogen	2.2	--	--	13.5	--	--
Biochemical Oxygen Demand (5-day)	<10	--	--	<10	--	--
Chemical Oxygen Demand	<20	--	--	44	--	--
Carbon, dissolved	40.0	--	--	47.2	--	--
Phenol, 4AAP	0.20	0.28	--	<0.01	0.06	--
Carbon, total organic	9.4	--	--	9.5	--	--
Carbon, dissolved organic	3.9	--	--	2.4	--	--
Temperature, oC	16.4	--	--	12.7	--	--
Specific Conductance @ 25oC	130	--	--	721	--	--
pH, standard units	7.88	--	--	7.66	--	--
Redox, mV	-144	--	--	-185	--	--
Dissolved Oxygen	8.16	--	--	0.01	--	--
Nitrite	0-1.25	--	--	0-1.25	--	--
Nitrate	0-2.5	--	--	0-2.5	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

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11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

	SB6330			SB6406		
	09/12/97 Sample	09/12/97 Replicate A	09/12/97 Replicate B	09/11/97 Sample	09/11/97 Replicate A	09/11/97 Replicate B
Sample I.D.	SB-63W30	SB-63W30	SB-63W30	SB-64W06	SB-64W06	--
Soil Boring	63	63	63	64	64	--
Depth	30	30	30	6	6	--
Phenol	490	--	--	<0.010	--	--
2-Chlorophenol	<90	--	--	<0.010	--	--
o-Cresol	50 j	--	--	<0.010	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	200	--	--	<0.010	--	--
2,4-Dimethylphenol	11 j	--	--	<0.010	--	--
2-Nitrophenol	<90	--	--	<0.010	--	--
Benzoic Acid	<450	--	--	0.005 j	--	--
2,4-Dichlorophenol	<90	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<90	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<90	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<450	--	--	<0.050	--	--
2,4-Dinitrophenol	<450	--	--	<0.050	--	--
4-Nitrophenol	<450	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<450	--	--	<0.050	--	--
Pentachlorophenol	<450	--	--	<0.050	--	--
Benzene	0.68	--	--	<0.0010	--	--
Ethyl Benzene	<0.050	--	--	<0.0010	--	--
Toluene	<0.050	--	--	<0.0010	--	--
Xylenes	<0.050	--	--	<0.0010	--	--
Arsenic	50.8	--	--	<0.0050	--	--
Arsenic, filtered	49.4	--	--	<0.0050	--	--
Iron, filtered	1.04	--	--	<0.100	--	--
Manganese, filtered	0.0242	--	--	0.0474	--	--
Total Alkalinity as CaCO3	2670	--	--	185	185	--
Total Dissolved Solids	1590	1610	--	230	243	--
Chloride	3340	2890	3190	7.0	6.7	6.5
Cyanide, WAD	243	--	--	<0.0050	<0.0050	--
Sulfate	588	562	--	37.0	34.5	--
Sulfide, total	6.7	--	--	<0.1	<0.1	--
Thiocyanate	581	621	--	<1	<1	--
Ammonia Nitrogen	979	1190	1010	<0.2	<0.2	<0.2
Nitrate	<0.05	<0.05	--	0.84	0.82	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	5.17	--	--	0.08	0.08	--
Total Kjeldahl Nitrogen	1850	--	--	0.6	0.6	--
Biochemical Oxygen Demand (5-day)	2500	--	--	<20	<20	--
Chemical Oxygen Demand	5380	--	--	<20	<20	--
Carbon, dissolved	1500	--	--	17.9	17.9	--
Phenol, 4AAP	900	918	--	0.29	0.01	--
Carbon, total organic	1300	--	--	2.8	2.8	--
Carbon, dissolved organic	1250	--	--	2.0	2.0	--
Temperature, oC	11.4	--	--	18.9	--	--
Specific Conductance @ 25oC	1400	--	--	30	--	--
pH, standard units	8.58	--	--	7.43	--	--
Redox, mV	-298	--	--	10	--	--
Dissolved Oxygen	0.04	--	--	5.77	--	--
Nitrite	0-1.25	--	--	10-15	--	--
Nitrate	0-2.5	--	--	20-30	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

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11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

Sample I.D.	SB6412			SB6418		
	09/11/97	09/11/97	09/11/97	09/11/97	09/11/97	09/11/97
	Sample	Replicate A	Replicate B	Sample	Replicate A	Replicate B
Soil Boring	SB-64W12	SB-64W12	SB-64W12	SB-64W18	SB-64W18	SB-64W18
Depth	64	64	64	64	64	64
	12	12	12	18	18	18
Phenol	<0.010	--	--	<0.010	--	--
2-Chlorophenol	<0.010	--	--	<0.010	--	--
o-Cresol	<0.010	--	--	<0.010	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<0.010	--	--	<0.010	--	--
2,4-Dimethylphenol	<0.010	--	--	<0.010	--	--
2-Nitrophenol	<0.010	--	--	<0.010	--	--
Benzoic Acid	0.006 j	--	--	0.15 e	--	--
2,4-Dichlorophenol	<0.010	--	--	<0.010	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<0.010	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<0.010	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<0.050	--	--
2,4-Dinitrophenol	<0.050	--	--	<0.050	--	--
4-Nitrophenol	<0.050	--	--	<0.050	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<0.050	--	--
Pentachlorophenol	<0.050	--	--	<0.050	--	--
Benzene	<1.0	--	--	<0.0010	--	--
Ethyl Benzene	<1.0	--	--	<0.0010	--	--
Toluene	<1.0	--	--	<0.0010	--	--
Xylenes	<1.0	--	--	<0.0010	--	--
Arsenic	0.0378	--	--	0.0403	--	--
Arsenic, filtered	0.0348	--	--	0.0478	--	--
Iron, filtered	0.461	--	--	1.29	--	--
Manganese, filtered	0.0533	--	--	0.0807	--	--
Total Alkalinity as CaCO3	128	--	--	201	--	--
Total Dissolved Solids	180	173	--	245	239	--
Chloride	7.3	7.2	--	4.0	3.3	3.9
Cyanide, WAD	<0.0050	--	--	<0.0050	<0.0050	--
Sulfate	31.6	31.8	--	12.8	2.8	--
Sulfide, total	<0.1	--	--	<0.1	<0.1	--
Thiocyanate	<1	<1	--	<1	<1	--
Ammonia Nitrogen	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrate	<0.05	<0.05	--	0.05	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.52	--	--	0.37	0.37	--
Total Kjeldahl Nitrogen	<0.1	--	--	0.9	0.9	--
Biochemical Oxygen Demand (5-day)	<20	--	--	<20	<20	--
Chemical Oxygen Demand	<20	--	--	<20	<20	--
Carbon, dissolved	4.9	--	--	15.4	15.4	--
Phenol, 4AAP	0.36	0.91	--	<0.01	0.02	--
Carbon, total organic	1.9	--	--	3.2	3.2	--
Carbon, dissolved organic	1.2	--	--	3.0	3.0	--
Temperature, oC	17.4	--	--	15.9	--	--
Specific Conductance @ 25oC	--	--	--	40	--	--
pH, standard units	7.85	--	--	7.84	--	--
Redox, mV	-102	--	--	-166	--	--
Dissolved Oxygen	2.16	--	--	2.36	--	--
Nitrite	10-15	--	--	2-4	--	--
Nitrate	15-20	--	--	2.5-5	--	--

-- Not analyzed.

e Estimated value, exceeded the instrument calibration range.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

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11/04/97

1997 BEACH TRANSECT SAMPLES
WATER QUALITY DATA

(concentrations in mg/L, unless noted otherwise)

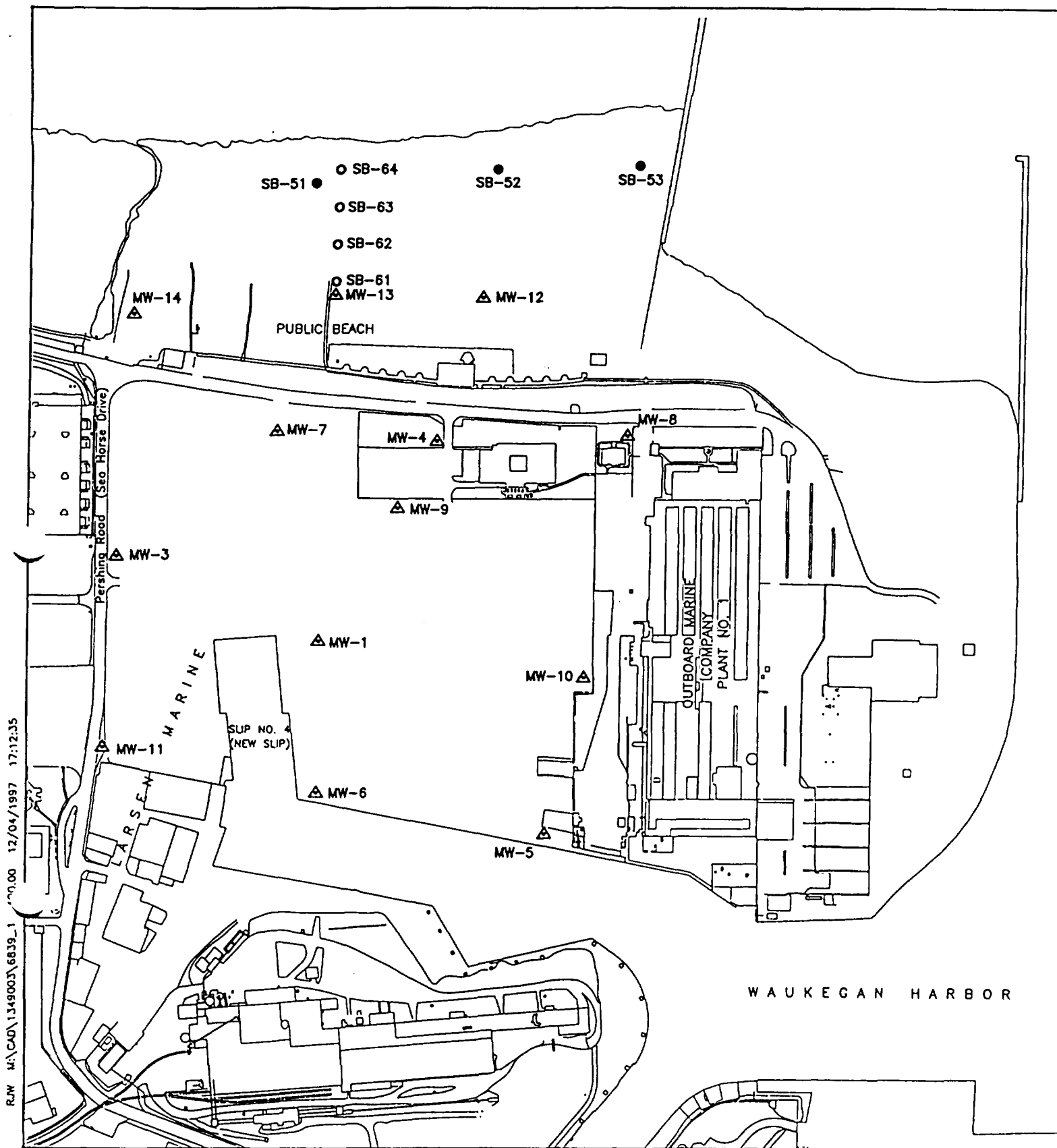
Sample I.D.	SB6424			SB6430		
	09/11/97	09/11/97	09/11/97	09/12/97	09/12/97	09/12/97
	Sample	Replicate A	Replicate B	Sample	Replicate A	Replicate B
Sample I.D.	SB-64W24	SB-64W24	SB-64W24	SB-64W30	SB-64W30	SB-64W30
Soil Boring	64	64	64	64	64	64
Depth	24	24	24	30	30	30
Phenol	<0.010	--	--	140	--	--
2-Chlorophenol	<0.010	--	--	<30	--	--
o-Cresol	<0.010	--	--	15 j	--	--
m-Cresol	--	--	--	--	--	--
p-Cresol	<0.010	--	--	55	--	--
2,4-Dimethylphenol	<0.010	--	--	<30	--	--
2-Nitrophenol	<0.010	--	--	<30	--	--
Benzoic Acid	0.076	--	--	<150	--	--
2,4-Dichlorophenol	<0.010	--	--	<30	--	--
4-Chloro-3-methylphenol	<0.010	--	--	<30	--	--
2,4,6-Trichlorophenol	<0.010	--	--	<30	--	--
2,4,5-Trichlorophenol	<0.050	--	--	<150	--	--
2,4-Dinitrophenol	<0.050	--	--	<150	--	--
4-Nitrophenol	<0.050	--	--	<150	--	--
2-Methyl-4,6-dinitrophenol	<0.050	--	--	<150	--	--
Pentachlorophenol	<0.050	--	--	<150	--	--
Benzene	<0.0010	--	--	0.23	--	--
Ethyl Benzene	<0.0010	--	--	<0.010	--	--
Toluene	<0.0010	--	--	<0.010	--	--
Xylenes	<0.0010	--	--	0.013	--	--
Arsenic	0.0971	--	--	12.0	--	--
Arsenic, filtered	0.0818	--	--	12.9	--	--
Iron, filtered	1.15	--	--	0.860	--	--
Manganese, filtered	0.0402	--	--	0.128	--	--
Total Alkalinity as CaCO3	323	--	--	1970	--	--
Total Dissolved Solids	380	370	--	629	595	--
Chloride	118	112	110	936	840	1050
Cyanide, WAD	0.0090	--	--	0.145	--	--
Sulfate	<2.0	<2.0	--	194	152	--
Sulfide, total	0.2	--	--	4.2	--	--
Thiocyanate	<1	<1	--	161	171	--
Ammonia Nitrogen	27.7	28.7	27.5	491	532	569
Nitrate	<0.05	<0.05	--	<0.05	<0.05	--
Nitrite	<0.05	<0.05	--	<0.05	<0.05	--
Phosphorus, total	0.71	--	--	5.39	--	--
Total Kjeldahl Nitrogen	36.3	--	--	654	--	--
Biochemical Oxygen Demand (5-day)	<20	--	--	800	--	--
Chemical Oxygen Demand	48	--	--	1390	--	--
Carbon, dissolved	34.2	--	--	445	--	--
Phenol, 4AAP	0.14	0.10	--	246	265	--
Carbon, total organic	4.2	--	--	362	--	--
Carbon, dissolved organic	3.4	--	--	356	--	--
Temperature, oC	14	--	--	12.9	--	--
Specific Conductance @ 25oC	70	--	--	619	--	--
pH, standard units	7.80	--	--	8.14	--	--
Redox, mV	-148	--	--	-296	--	--
Dissolved Oxygen	0.06	--	--	0.05	--	--
Nitrite	0-1.25	--	--	2-5	--	--
Nitrate	0-2.5	--	--	5-10	--	--

-- Not analyzed.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

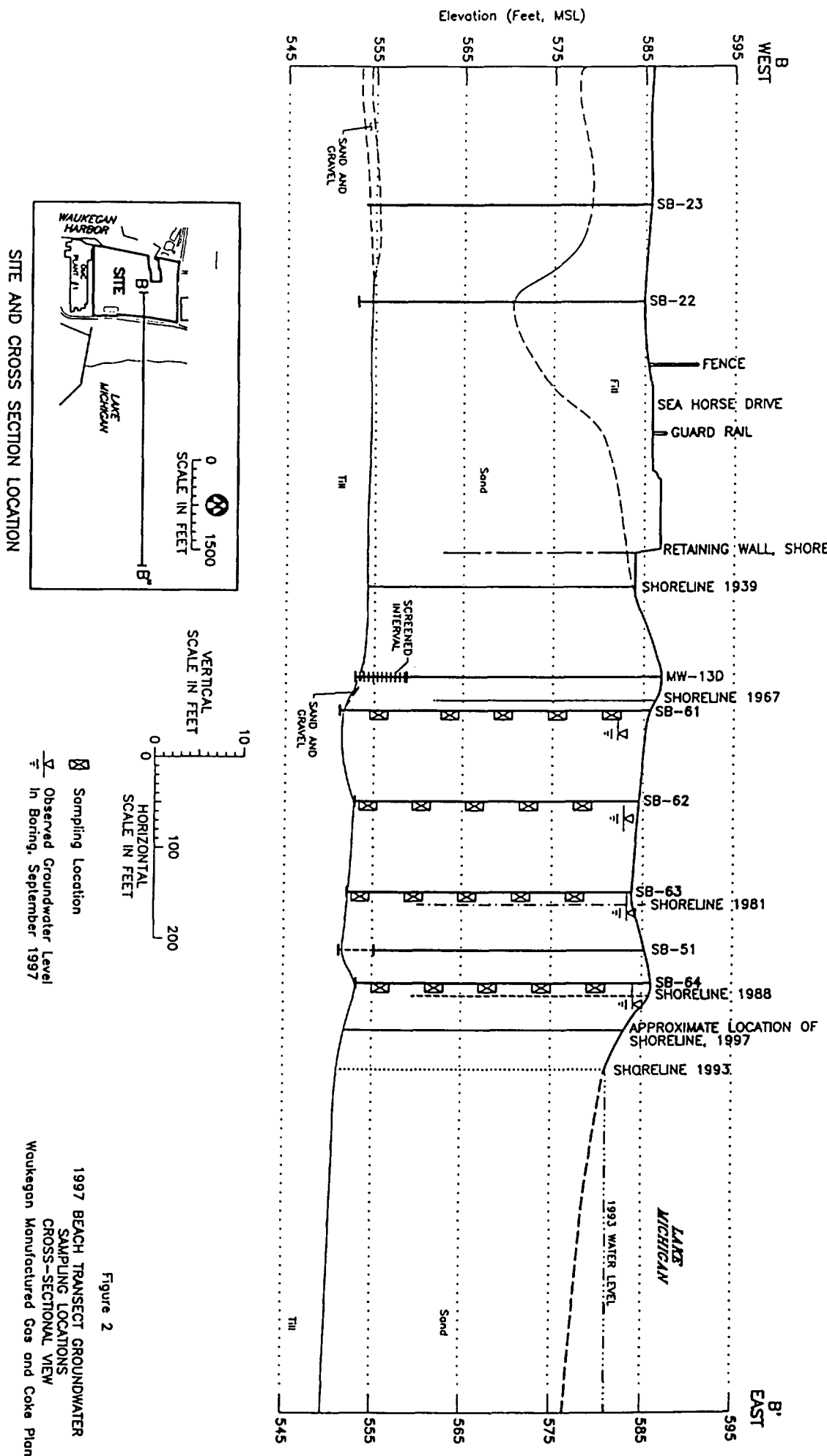
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11/04/97



- ▲ MW-7 Sand Aquifer Monitoring Well
- Previous Beach Boring Location
- Beach Transect Groundwater Sample Location

Figure 1
1997 BEACH TRANSECT
GROUNDWATER SAMPLING LOCATIONS
Waukegan Manufactured Gas & Coke Plant



Barr

Engineering Company

November 7, 1997

NOV 11 1997

Mr. Mike Bellot
SR-6J
Project Manager
U.S. EPA, Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

**Re: Waukegan Manufactured Gas and Coke Plant Site RI/FS
Monthly Progress Report for October 1997**

Dear Mr. Bellot:

Enclosed is the monthly progress report for October 1997 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site in Waukegan, Illinois. The report is being submitted on behalf of North Shore Gas Company. The report is being submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent between the United States Environmental Protection Agency and the North Shore Gas Company.

Please contact me if you have any questions on the progress report.

Sincerely,

James R. Langseth

JRL/dsd

Enclosure

c: Lawrence Schmitt
Jerry Willman
Steve Matuszak
Jerry Picha
Margaret Skinner
Stephen Armstrong
Russell Selman
Edward Peterson
Jerry Maynard
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**Monthly Progress Report
Remedial Investigation/Feasibility Study
Waukegan Manufactured Gas and Coke Plant
November 7, 1997**

This report summarizes the work that was completed during October 1997 for the Remedial Investigation/Feasibility Study of the Waukegan Manufactured Gas and Coke Plant Site. This monthly progress report is submitted pursuant to Section E of Article IX of the September 27, 1990, Administrative Order by Consent (AOC) between the United States Environmental Protection Agency (U.S. EPA) and the North Shore Gas Company.

Descriptions of Actions Taken During the Month to Comply With the AOC, Target and Actual Completion Dates for Each Activity, Schedule Deviations, and Proposed Methods of Mitigating Schedule Deviations.

Feasibility Study

- Draft feasibility study is scheduled for submission to EPA on January 29, 1998.
- Continued evaluation of potential remedial alternatives.
- Submitted draft of FS Sections 3 and 4 to EPA on October 31.

Results of Sampling and Tests Completed During the Month

- No test results were submitted.

Difficulties Encountered During the Month and Actions Taken to Rectify Them

- No difficulties were encountered during the month.

Changes in Personnel

- There were no changes in personnel during the month.